Remarks

This Reply is responsive to the Office Action mailed on October 3, 2005 and is accompanied by a petition for a one-month extension of time along with authorization to charge for the extension fee to charge account 50-0951. Claims 1-26 were pending at the time of the Office Action.

In this Reply, dependent claim 22 has been amended to add a missing word. No new matter has been added.

Claims 1-4, 11-13, 15, 21, 22, and 26 are rejected under 35 U.S.C. § 102(b) as being anticipated by Clarke (US 6,208,887). The remaining claims were rejected based on Clarke as applied to claims 1 and 15 above, and further in view of Boppart et al. (US 6,485,413).

Before reviewing the cited art, Applicant will first review the claimed invention recited in claim 1.

1. A diagnostic method, comprising the steps of:
exposing at least one sample location with excitation radiation through a single optical waveguide or a single optical waveguide bundle, wherein said sample emits emission radiation in response to said excitation radiation;
receiving at least a portion of said emission radiation from said sample location in said single optical waveguide or said single optical waveguide bundle, wherein said single optical waveguide or said single optical waveguide bundle provides co-registration of said excitation radiation and said emission radiation, and
synchronously scanning a wavelength of said excitation radiation and a wavelength of said emission radiation to produce a spectrum. (italics for emphasis only)

As noted in Applicant's background in paragraphs 5 and 6 (copied below) the synchronous luminescence (SL) method which involves scanning both the excitation and emission wavelength upon which the present claimed invention is based is quite distinct as compared to conventional spectroscopy which uses a fixed excitation wavelength:

[0005] Synchronous luminescence (SL) methodology is an improved technology over LIF and provides a way to measure the luminescence signal and spectral fingerprints for rapid screening of complex chemical samples. The general theory of the SL method has been described previously in "Synchronous Excitation Spectroscopy," authored by the inventor of the present application T. Vo-Dinh, in Modern Fluorescence Spectroscopy, Chapter 5, Ed. by E. L. Wehry (Plenum Publ. Corp. 1981), which is incorporated herein by reference in its entirety. *In contrast to SL, conventional luminescence spectroscopy uses either a fixed-wavelength excitation (λ_{ex}) to produce an emission spectrum or a fixed wavelength emission (λ_{em}) to record an excitation spectrum. With SL, the luminescence signal is recorded while both λ_{em} and λ_{ex} are simultaneously scanned.* A constant wavelength interval is generally maintained between the excitation and the emission monochromators throughout the spectrum. As a result, the observed intensity I_s of the synchronous signal can be written as a product of two functions as follows:

$$I_s (\lambda_{ex}, \lambda_{em}) = k\, c\, E_x (\lambda_{ex}) \cdot E_M (\lambda_{ex}) \qquad (1)$$

where:

k = a constant,
c = concentration of the analyte,
E_λ = excitation function, and
E_M = emission function

[0006] For a single molecular species the observed intensity I_s is simplified often to a